
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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ANTIMONY IN THE FOURTH QUARTER 1997

Prices for most forms of antimony declined somewhat during the fourth quarter of 1997. The New York dealer price for antimony metal, published by *Platt's Metals Week*, was \$0.95 to \$1.05 per pound at the beginning of the quarter and \$0.75 to \$0.85 per pound at the end of the quarter.

The price of high-tint antimony trioxide, published by *American Metal Market*, started the quarter at \$1.05 to \$1.25 per pound and ended the quarter at \$1.05 to \$1.15 per pound.

The price for clean antimony sulfide concentrate, published by *Metal Bulletin*, started the quarter at \$18.00 to \$19.00 per metric ton unit and ended the quarter at \$15.00 to \$16.00 per metric ton unit. The price for lump antimony sulfide ore (60% antimony content) began the quarter at \$18.50 to \$19.50 per metric ton unit and ended the quarter at \$15.50 to \$16.00 per metric ton unit.

Great Lakes Chemical Corp. (West Lafayette, IN) announced the completion of its acquisition of Cookson Group Plc.'s global antimony products business (Anzon) for \$90 million cash. Great Lakes believed that the purchase of Anzon complemented its polymer additives business (flame retardants and polymer stabilizers) and positioned it as the foremost global supplier of antimony-based compounds for use as flame retardants. Anzon's operations include facilities in Mexico, South Africa, the United Kingdom, and the United States. Its sales in 1996 were about \$80 million. Great Lakes' stock is traded on the New York Stock Exchange; and the firm considers itself the world's leading producer of certain specialty chemicals for such applications as flame retardants, polymer stabilizers, fire extinguishants, water treatment, and petroleum additives (Great Lakes Chemical Corp., 1997).

Laurel Industries, Inc., an operating unit of Occidental Chemical Corp., announced the acquisition of the flame retardant business of Elf Atochem North America, Inc. The Elf Atochem flame retardant business includes antimony oxide, sodium antimonate, and brominated plasticizer additives and concentrates (Laurel Industries, Inc., 1997).

China's Antimony Producers Association, after a meeting at Guilin, Guangxi province, has reportedly begun to urge its members to reduce antimony production. A Chinese official complained that current prices were far below production costs. A leading antimony producer, Hsikwangshan, based in Hunan, and known for its Twinkling Star brand antimony products, announced that it had ceased antimony metal production and was planning to reduce its antimony trioxide production. Reportedly, Hsikwangshan has already closed four out of its seven trioxide lines, and plans to shutter another two in the coming months, leaving only one line operational. One of the two mines which the company operates as a source for its antimony concentrates was to be closed by yearend 1997 (Metal Bulletin, 1997).

References Cited

- Great Lakes Chemical Corp. 1997, Great Lakes completes acquisition of antimony products business: Great Lakes Chemical Corp. News Release, November 3, 1 p.
- Laurel Industries, Inc. 1997, Laurel Industries acquires Elf Atochem North America flame retardant business: Laurel Industries, Inc. News Release, December 8, 1 p.
- Metal Bulletin, 1997, China urges producers to cut production: Metal Bulletin, no. 8236, December 11, p. 7.

TABLE 1
SALIENT ANTIMONY STATISTICS 1/

(Metric tons, antimony content)

	1996	1997			Total p/
		Jan.-June	Third quarter	Fourth quarter	
Production:					
Primary smelter 2/	25,700	12,600	6,820	7,040	26,500
Secondary	7,900	2,420	1,110 r/	1,190	4,710
Imports for consumption:	37,600	20,500	8,630	6,830 3/	36,000
Ore and concentrate	1,000	725	79	200 3/	1,000
Metal	18,300	8,560	2,430	2,600 3/	13,600
Oxide 4/	18,300	11,200	6,110	4,030 3/	21,400
Exports:	5,270	2,480	1,140	634 3/	4,250
Metal, alloys and scrap	462	362	141	100 3/	603
Oxide 4/	4,810	2,120	997	534 3/	3,650
Consumption of primary antimony	13,600	6,380 r/	3,050 r/	3,200	12,600
Price: Average cents per pound 5/	146.58	105.30	96.66	84.16	97.82
Stocks end of period 6/	11,200	11,600	10,100 r/	10,800	XX

p/ Preliminary. r/ Revised. XX Not applicable.

1/ Data are rounded to three significant digits, except prices.

2/ Nearly all smelter output is trioxide.

3/ Data for October and November only.

4/ Antimony oxide content is calculated by the U.S. Geological Survey.

5/ New York dealer price for 99.5% to 99.6% metal, c.i.f. U.S. ports.

6/ Producer and consumer stocks.

TABLE 2
INDUSTRY STOCKS OF PRIMARY ANTIMONY IN THE
UNITED STATES AT END OF PERIOD 1/

(Metric tons, antimony content)

Type of material	1997 2/		
	Jan.-June	Third quarter	Fourth quarter
Metal	4,300	2,470	3,080
Oxide	3,580 r/	4,040 r/	4,460
Other 3/	3,690	3,600 r/	3,240
Total	11,600	10,100 r/	10,800

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Estimated 100% coverage based on reports from respondents who held 96% of the total stocks of antimony at the end of 1996.

3/ Includes ore and concentrate, sulfide, and residues.

TABLE 3
INDUSTRIAL CONSUMPTION OF PRIMARY ANTIMONY 1/

(Metric tons, antimony content)

Class of material consumed	1996	1997 2/			Total p/
		Jan.-June	Third quarter	Fourth quarter	
Metal	2,060	1,030	448	561	2,040
Oxide	11,400	5,330 r/	2,590 r/	2,630	10,500
Other 3/	131	26	15	10	51
Total	13,600	6,380 r/	3,050 r/	3,200	12,600

p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Estimated 100% coverage based on reports from respondents who consumed 81% of the total antimony in 1996.

3/ Includes sulfide and residues.

TABLE 4
INDUSTRIAL CONSUMPTION OF PRIMARY ANTIMONY, BY CLASS OF
MATERIAL PRODUCED 1/

(Metric tons, antimony content)

Product	1996	1997			Total p/
		Jan.-June	Third quarter	Fourth quarter	
Metal products:					
Antimonial lead	1,760	411	W	W	411
Other 2/	1,350	700	512 r/	445	1,660
Total metal products	3,110	1,110	512 r/	445	2,070
Nonmetal products:					
Ceramics and glass	1,030	478	238 r/	235	951
Other 3/	1,660	614	299 r/	501	1,410
Total nonmetal products	2,690	1,090	537 r/	736	2,370
Flame-retardants:					
Plastics	6,830	2,740	1,330 r/	1,310	5,380
Other 4/	931	224	87	100	411
Total flame retardants	7,770	2,960	1,420 r/	1,410	5,790
Total reported	13,600	5,160	2,470 r/	2,590	10,200
Full industry totals 5/	--	6,380	3,050 r/	3,200	12,600

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Metal products; Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes ammunition, antimonial lead, bearing metal and bearings, cable coverings, castings, sheet and pipe and solder.

3/ Includes ammunition primers, pigments, and plastics.

4/ Includes adhesives and textiles.

5/ Estimated 100% coverage based on reports from respondents who consumed 81% of the total antimony in 1996.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF ANTIMONY, BY COUNTRY 1/

(Metric tons, antimony content)

Country	1996	1997					
		Jan.-June	Third quarter	September	October	November	Jan.-Nov.
Ore and concentrate:							
Bolivia	221	--	--	--	--	--	--
China	473	489	15	--	40	60	603
Other	310	237	65	20	--	100	401
Total	1,000	725	79	20	40	160	1,000
Metal:							
Bolivia	153	2	--	--	20	--	22
China	13,500	7,360	2,030	477	1,100	1,310	11,800
Hong Kong	1,620	466	20	--	--	34	520
Kyrgyzstan	1,240	117	--	--	60	--	177
Mexico	1,330	532	131	38	25	40	728
Peru	--	--	181	--	--	--	181
Other	421	88	66	49	2	11	167
Total	18,300	8,560	2,430	565	1,200	1,390	13,600
Oxide:							
Belgium	1,080	761	423	156	232	226	1,640
Bolivia	2,480	1,530	519	17	363	245	2,660
China	7,730	4,740	3,370	926	847	714	9,670
Guatemala	183	552	196	50	83	33	863
Kyrgyzstan	150	350	116	--	--	84	550
Mexico	3,150	1,380	785	256	272	250	2,690
Russia	--	15	197	--	33	66	312
South Africa	2,860	1,530	416	--	370	--	2,320
Other	718	376	87	35	49	165	678
Total	18,300	11,200	6,110	1,440	2,250	1,780	21,400
Grand total	37,600	20,500	8,630	2,030	3,490	3,340	36,000
Other antimony compounds (gross weight)	63	56	20	11	--	11	87

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census. Antimony content is calculated by the U.S. Geological Survey.